ABSTRACT

An optical fiber including center and first side cores in which an apparent refractive index differences of the center and first side cores are 1.15 to 1.40% and -0.60 to -0.35, respectively. A constant α is 1.0 to 5.0, b/a is 1.6 to 2.4, a dispersion value is -60 to -35 ps/nm/km, a dispersion slope is -0.40 to -0.10 ps/nm²/km, a transmission loss is 0 to 0.35 dB/km, FOM is 120 to 500 (ps/nm)/dB, PMD is 0 to 0.15 ps/ \sqrt{km} , A_{eff} is 19 to 50 μ m² when the wavelength is 1.55 μ m band, and a bending loss at a diameter of 20 mm is 0 to 5 dB/m.